MACHAKOS UNIVERSITY

University Examinations 2018/2019

MATHEMATICS

CRAFT MODULE 1 EXAM

ANSWER ALL QUESTIONS IN THIS PAPER **APRIL TERM 2 2019**

1a) Simplify $\left(1\frac{3}{5}-\frac{1}{2}\right)\div\left(\frac{1}{2}\times\frac{1}{5}\right)$ (3 marks)

b) The cost price of an article is a quarter of its selling price. Find the profit percentage (2 marks)

c) Factorize x (4-4)-3(4-4) 4(marks)

2a) The line 2y=8-3x cuts the y axis at p (o, k). find the gradient of the line and the value of k. (2 marks)

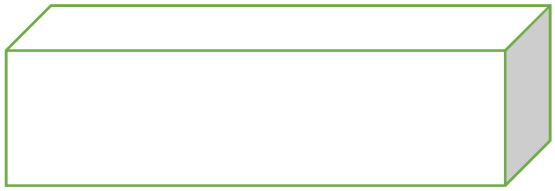
b) If y varies as the square of x,

i) What happens toy when axis trebled

ii) Find y when x=3, given that y=12 when x=2 (5 marks)

c) Two vertical walls are 6m and 3.6m high. they are 3.2m apart. What is the distance between their tops? (3 marks)

3a) Calculate the total surface area of the given cuboid. The shaded face has an area of 10.5cm ^{2}



b) A student expands $(x-y)^2$ incorrectly as x^2+y^2. find his %error if x=4 and y=-6

c) Evaluate $\left(8\frac{2}{3}\right)^{2}\div\left(4\frac{2}{3}\right)^{-3}$

4a) A football team played 15 matches and the number of goals scored is given below

0	2	3	5	2	5	5
2	4	5	0	2	5	-

i) Make a frequency distribution table its determine the mode and median scores (3 marks)

b) The values of y in relation to those of x are given in this table

X	1	2	4	20
y	0.2	0.8	3.2	80

How does y vary as x? (3 marks)

5a) Mary bought an old sewing machine for sh 750. She paid 35% of the price in cash and paid the balance in 10 equal monthly installments. What was the monthly installments? (4 marks)

b) Simplify $\frac{(3\times10^4)}{1.5\times10^8\times4.0\times10^2}$

Giving your answer in standard form. (3 marks)